Before the Federal Communications Commission Washington, D.C. 20554

In the Matter of	
Connect America Fund) WC Docket No. 10-90
A National Broadband Plan for Our Future) GN Docket No. 09-51
Establishing Just and Reasonable Rates for Local Exchange Carriers	WC Docket No. 07-135
High-Cost Universal Service Support) WC Docket No. 05-337
Developing a Unified Intercarrier Compensation Regime) CC Docket No. 01-92
Federal-State Joint Board on Universal Service) CC Docket No. 96-45
Lifeline and Link-Up) WC Docket No. 03-109

COMMENTS OF NEW AMERICA FOUNDATION'S OPEN TECHNOLOGY INITIATIVE, PUBLIC KNOWLEDGE, AND BENTON FOUNDATION

January 18, 2012

INTRODUCTION

In response to the Commission's request in the November 18, 2011, Order and Further Notice of Proposed Rulemaking¹ for comment on the proposed Remote Areas Fund, New America Foundation, Public Knowledge, and Benton Foundation (collectively, "Public Interest Commenters") ask the Commission to disperse any allocated funds in a way that opens the fund to community and locally-owned broadband providers seeking to offer service in a remote area, rather than only permit satellite broadband providers to receive support. Further, in response to the Commission's request for comment on the inclusion of an interconnection obligation for fund recipients, Public Interest Commenters reiterate the need for such an obligation, which is particularly important to ensure that any local broadband providers wishing to receive support under the Remote Areas Fund have access to necessary backhaul capacity to provision high-speed Internet service to those remote areas.

I. THE COMMISSION SHOULD STRUCTURE THE REMOTE AREAS FUND TO ENABLE COMMUNITY AND LOCAL BROADBAND PROVIDERS THE OPPORTUNITY TO PARTICIPATE IN THE FUND.

The Commission should structure its program to ensure that community broadband networks and other locally developed networks are eligible for funding, and have a realistic chance of receiving it. The Commission proposes to allocate \$100 million to a Remote Areas Fund that would "ensure that Americans living in the most remote areas in the nation, where the cost of deploying traditional terrestrial broadband networks is extremely high, can obtain affordable access through alternative technology platforms, including satellite and unlicensed

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¹ In the Matter of Connect America Fund, WC Docket Nos. 10-90, 07-135, 05-337, 03-109, GN Docket No. 09-51; CC Docket Nos. 01-92, 96-45, *Order and Further Notice of Proposed Rulemaking* (rel. Nov. 18, 2011) ("Order").

wireless services."² Public Interest Commenters note that while satellite and unlicensed wireless service providers are two potential sources of coverage for these remote areas, other types of providers, including community networks, may be able to serve these areas as well. To ensure that consumers have access to the most robust available broadband service, Commission should structure the Remote Areas Fund in a way that opens support to all providers that are able to serve remote areas in a cost-effective manner and with a service that is comparable to that provided in Connect America Fund ("CAF") supported areas.

While the Commission appears to view satellite as the primary gap-filler for remote areas³, it should not overlook other types of service providers who may be able to offer distinct benefits to residents of these areas. For example, smaller, community-driven networks such as community wireless networks or locally-owned and operated WISPs may be better equipped to address broadband needs of remote areas, offering more localized solutions that can connect residences as well as businesses, schools, hospitals, libraries, and other anchor institutions in a community. Community-driven development of broadband infrastructure in turn has the ability to deeply engage community members with the broadband deployment process, which is particularly important in communities that are presently unserved and that may need additional digital literacy training and ongoing technical support.

In addition, while satellite service offerings are gradually increasing in terms of speed and capacity, they are still often inadequate for many day-to-day needs of even the most basic resident consumer. Speeds are often limited to a maximum of 2 mbps download and less than 1

 2 Order at ¶ 30.

³ The Commission, for example, looks to satellite to make its baseline funding determinations: "Satellite broadband is already available to most households and small businesses in remote areas, and is likely to be available at increasing speeds over time, but current satellite services tend to have significantly higher prices to end-users than terrestrial fixed broadband services and include substantial up-front installation costs." Order at ¶ 536.

mbps upload for top-tier (\$100+) services.⁴ As the Commission itself has noted, these speeds are insufficient to support video-based streaming,⁵ and they do not meet the Commission's definition of "broadband" for the rest of the country.⁶

Moreover, even though the offerings of next-generation satellite providers, such as the ViaSat-2 service, are increasing in speed, these services still suffer from the two other major problems associated with existing satellite broadband service – latency and data caps.⁷ "Satellite is still prone to latency, which means it's not the best choice for applications that need a short time-of-flight…"⁸; such applications in the context of remote areas would mean, for example,

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⁴ Based on the service specifications of Hughes, one of the largest satellite providers for rural areas http://www.hughesnet.com/. Offerings from other providers, such as My Blue Dish, are even slower.

⁵ In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans In a Reasonable and Timely Fashion, and Possible Steps to Accesslerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act and A National Broadband Plan for Our Future, GN Docket Nos. 09-137, 09-51, Sixth Report and Order (rel. July 20, 2010) at ¶ 5. "[A 4 Mbps download speed] is the minimum speed required to stream a high-quality – even if not high-definition – video…"

⁶ Order at ¶ 94: "Given the foregoing, other than for the Phase I Mobility Fund, we adopt an initial minimum broadband speed benchmark for CAF recipients of 4 Mbps downstream and 1 Mbps upstream. Broadband connections that meet this speed threshold will provide subscribers in rural and high cost areas with the ability to use critical broadband applications in a matter reasonably comparable to broadband subscribers in urban areas." It should thus be noted that Public Interest Commenters therefore do not support the Commission's suggestion for "modestly relaxing the broadband performance obligations associated with this [remote areas] funding ..." Order at ¶ 533.

⁷ Sean Gallagher, "How ViaSat's Exede Makes Satellite Broadband Not Suck," Ars Technica, available at http://arstechnica.com/business/news/2012/01/how-viasats-exede-makes-satellite-broadband-not-suck.ars (Ars Tecnica Article); Dante D'Orazio, "ViaSat Prices Satellite Broadband Plans, Calls them Exede," The Verge, available at http://www.theverge.com/2012/1/10/2694708/viasat-exede-pricing-availability-satellite-broadband-internet. In addition, the coverage map included in the Ars Technica Article of the ViaSat-2 service illustrates that many segments of the country that contain the remote areas this fund seeks to address are not even included in ViaSat's service plan.

⁸ Ars Technica Article.

that satellite would be a problematic option for latency-sensitive telehealth services or Voice over Internet Protocol ("VoIP"). Likewise, ViaSat is also "offering service plans that have monthly data caps to help manage the capacity they have now," since the next-generation satellite ViaSat-2 will not be put into orbit until 2015. Data caps effectively prevent satellite consumers from using any video-intensive applications or download large software files such as computer operating systems, as such uses will cause them to quickly exceed their cap.

To address these concerns and to ensure that consumers in remote areas are not left behind their peers in both more densely populated areas and CAF-supported areas, the Commission should include threshold service requirements for providers seeking fund support, and these requirements should be reasonably comparable to those imposed on providers serving consumers in non-remote areas. In addition, if the Commission selects the portable consumer subsidy as its mechanism for distributing fund support, it should simply permit consumers to use their subsidy for *any* broadband service offered in their area, whether that service is provided by a satellite, wireless, or other community network provider.

In response to questions on how to structure the Remote Areas Fund, Public Interest Commenters do not oppose the Commission's proposal to use CAF support to "make available discounted voice and broadband service to qualifying residences/households in remote areas, in a manner similar to [the Commission's] Lifeline and Link Up programs." However, Public Interest Commenters also see value in a system similar to the proposal evaluation process proposed in ¶ 1027, which we envision could be administered in a manner similar to the telehealth grant process. A grant-driven process would offer a more comprehensive approach that would encourage the development of a more interconnected infrastructure to aggregate

⁹ *Id*.

¹⁰ Order at ¶ 1025.

bandwidth and capacity in a community to improve the economics and sustainability of broadband infrastructure in a remote area.

If the Commission does select a portable consumer subsidy process for disbursement of Remote Area Fund support, the interconnection obligation proposed by Public Interest Commenters and noted by the Commission is critical to ensure that backhaul costs do not preclude community network initiatives or WISPs from providing service in unserved remote areas. Public Interest Commenters discuss this proposed obligation in greater detail in Part II, below.

II. AN INTERCONNECTION OBLIGATION ON PROVIDERS RECEIVING FUND SUPPORT IS CRITICAL TO ENSURE THAT COMMUNITIES HAVE ACCESS TO BACKHAUL CAPACITY, PARTICULARLY IF THE COMMISSION USES A PORTABLE CONSUMER SUBSIDY TO DISBURSE BENEFITS TO REMOTE AREAS.

The Commission also seeks comment on "the proposal of Public Knowledge and the Benton Foundation that CAF recipients should be required to make interconnection points and backhaul capacity available so that unserved high-cost communities could deploy their own broadband networks." As we have noted repeatedly in this docket, interconnection obligations that would require recipients to make interconnection points and backhaul capacity available would encourage more service to presently unserved high-cost communities. ¹² In the context of the Remote Areas Fund, including an interconnection obligation on high-cost recipients would

¹¹ Order at ¶ 1029.

¹² See, e.g. Comments of Public Knowledge and Benton Foundation, WC Docket Nos. 10-90, 07-135, 05-337, 03-109; GN Docket No. 09-51; CC Docket Nos. 01-92, 96-45 (filed Aug. 24, 2011) at 8 ("Public Knowledge and Benton Aug. 24th Comments"); Comments of Public Knowledge and Benton Foundation, WC Docket No. 10-90 et al (filed April 18, 2011) at 6; Letter from New America Foundation, Benton Foundation, and Public Knowledge to Marlene H. Dortch, Secretary, FCC, WC Docket No. 10-90 et al (filed Oct. 5, 2011); Comments of New America Foundation's Open Technology Initiative, Media Access Project, Access Humboldt, Rural Mobile & Broadband Alliance, and Center for Media Justice, WC Docket No. 10-90 et al (filed Sept. 6, 2011) at 8.

not only ensure that the fund does not foreclose present or future competition in served high-cost, CAF-supported areas, but also would reduce the cost burden on local providers seeking to serve remote communities.

In general, access to high-speed middle mile links and related infrastructure is important to mitigate the escalating costs associated with transporting traffic among networks, costs which in turn can create substantial barriers to the development of competitive broadband networks. An interconnection obligation would maintain the potential for competition in areas presently served by only one provider and offer high-cost area residents more choices in terms of services and plans. Such an obligation can also ensure that Universal Service Fund support can benefit a wide variety of providers.

In addition, if the Commission selects the portable consumer subsidy option as its method for disbursing Remote Area Fund support, an interconnection obligation is a critical component that would allow potential providers, who are already affected by a lack of economies of scale in remote areas, to access critical network infrastructure. The market for potential broadband subscribers in a remote community is small, and even if most consumers direct their subsidies to a community network or WISP seeking to provide service, those directed subsidies may not be sufficient to cover the expansion and maintenance of the network infrastructure if the costs for backhaul to the nearest CAF-supported provider are unreasonably high. The best way to mitigate this concern is to ensure that backhaul costs, often the largest single expense for many small, rural independent providers, are addressed through an interconnection obligation on CAF-supported network providers, who are likely to be the only available backhaul providers in close proximity to a remote area.

In response to the Commission's more specific questions concerning the potential interconnection obligation, Public Interest Commenters continue to support the requirement, originally submitted by Public Knowledge and Benton Foundation, that CAF recipients provide comparably efficient interconnection ("CEI") to essential networking facilities to self-provisioners as they offer to themselves. To ensure compliance with the interconnection obligation, the Commission should impose a reporting requirement, which would be mandatory upon application for CAF funding. A CAF-supported carrier could demonstrate that it meets this requirement by showing that it offers self-provisioners an interconnection point with similar interface functionality, technical characteristics, maintenance and repair schedules, end user access, transport costs, and availability as it uses internally. The Commission should also provide a forum wherein disputes arising out of the interconnection obligation can be resolved.

Finally, in response to the Commission's questions concerning the proposed fund for a Technology Opportunities Program to assist communities with deploying their own broadband networks, Public Interest Commenters also reiterate support for this type of program, and note again that this funding structure has proven successful in other contexts.

CONCLUSION

Providing remote areas with robust broadband access will help ensure that the Universal Service Fund is truly universal. The establishment of a Remote Areas Fund to provide specific support for these areas is an important first step toward connectivity. However, the Commission should also ensure that this portion of the fund remains inclusive and responsive to the needs of these communities. Thus for the reasons outlined above, the Commission should 1) structure the

¹³ Public Knowledge and Benton Aug. 24th Comments at 7-8.

¹⁴ *Id*. at 8.

¹⁵ *Id*.

Remote Areas Fund to include community networks and WISPs as potential providers, and 2) include an interconnection obligation for all CAF-supported providers. This interconnection obligation is of critical importance if the Commission selects a portable consumer subsidy as its method for disbursing Remote Area Fund support, and it would mitigate cost concerns for Remote Area Fund recipients by reducing barriers to critical network infrastructure.

Respectfully submitted,

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